

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0068988 A1 Chan et al.

Jun. 6, 2002 (43) Pub. Date:

(54) LOW POWER DIGITAL AUDIO DECODING/PLAYING SYSTEM FOR **COMPUTING DEVICES**

Inventors: Reginia Chan, Los Altos, CA (US); James Lam, Fremont, CA (US); William L. Densham, Los Gatos, CA (US); Sheau Chuen Her, Milpitas, CA (US); Sterling Du, Palo Alto, CA (US)

> Correspondence Address: HAYES, SOLOWAY, HENNESSEY, GROSSMAN & HAGE, P.C. 130 W. Cushing Street Tucson, AZ 85701 (US)

(21) Appl. No.: 09/921,171

(22) Filed: Aug. 2, 2001

Related U.S. Application Data

Non-provisional of provisional application No. 60/250,899, filed on Dec. 1, 2000. Non-provisional of provisional application No. 60/265,466, filed on Jan. 30, 2001.

Publication Classification

- (51)(52)
- **ABSTRACT** (57)

A low-power digital audio decoding and playing system and method for computing devices provides a low-cost, low power-consumption, long-battery-life audio playing and decoding system, which may be used to play compressed audio files of various formats. In one aspect, a computer system adapted to play audio files comprises a system CPU, memory, at least one drive comprising compressed audio data, and an audio controller coupled to the system CPU, memory and drive. The audio controller is adapted to cause the drive to read the compressed audio data from the drive, to cause the system CPU to decompress the compressed audio data from the drive into decompressed audio data, to cause the decompressed audio to be stored in the memory, and to cause the decompressed audio data to be retrieved from the memory for playing.

